

**Amendments to the Drawings**

The attached sheets of drawings include changes to Figures 2A, 2B and 2C. The handwritten text and arrows in the drawings have been replaced by typed text and arrows. These sheets replace the drawings as originally filed and do not include any new matter.

Attachment: Replacement Sheet

Annotated Sheet Showing Changes

## REMARKS/ARGUMENTS

### In the Claims:

Claims 4 and 5 have been amended to renumber the step introduced in claim 4 from "(e)" to "(g)". Claim 16 has been amended to clarify that the method is directed towards a process for storing data on computer-readable medium. No other amendments to the claims have been made in this Response. No new subject matter has been added.

### Claim Rejections – 35 U.S.C. 101

Claims 1 - 16 have been rejected, pursuant to 35 U.S.C. 101 as being directed to non-statutory subject matter. The Examiner has accordingly also rejected claims 1-16, pursuant to s.112.

The Examiner has referred to the *State Street Bank* case and noted that "the court was also careful to specify that the 'useful, concrete and tangible result' it found was 'a final share price momentarily fixed for recording purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.' (ie. the trading activity is the further practical use of the real world monetary data beyond the transformation in the computer – ie., 'post-processing activity'.)" It is interesting to note in response that the 'post-processing [trading] activity' is not in fact cited in the claims in the 5,193,056 patent which the court was considering.

Furthermore, the "Examiner in the present case views this holding as the dispositive issue for determining whether a claim is "useful, concrete, and tangible" in similar cases. Accordingly the Examiner finds that Applicant manipulated a set of abstract "attribute data" to solve purely algorithmic problems in the abstract ... Clearly, a claim for manipulation of "attribute data" is provably even more abstract (and thereby less limited in practical application) than pure "mathematical

algorithms" which the Supreme Court has held are per se nonstatutory – in fact, it *includes* the expression of nonstatutory mathematical algorithms." The Examiner continued and concluded that "Since the claims are not limited to exclude such abstractions, the broadest reasonable interpretation of the claim limitations includes such abstractions. Therefore the claims are impermissibly abstract".

For the reasons set out below, the Applicant disagrees with the Examiner's conclusions that the claims are not directed towards practical applications in the technological arts.

#### **Claim 1 (and 2-5)**

As set out in the specification, for example in the discussion relating to Figures 5A-5C (paragraph 44 – 57), the claimed methodology of claim 1 provides for the diagnosing of a root cause of problem case. The root cause, then, is the "useful, concrete, and tangible result" required under s.101, which the technician may act upon – eg. "find and correct the source of the oil leak" (Fig. 2C).

The MPEP at s.2106.II.A states "The purpose of the [useful, concrete and tangible result] requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research. (*Brenner v. Manson*, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96); *In re Ziegler*, 992, F.2d. 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993).

It is submitted that the root cause of a problem may be analogized to the "final share price" in the *State Street* case. Similarly, the technician's post-processing corrective activity may be analogized to the post-processing trading activity identified in *State Street*.

As set out in the MPEP s.2106.II.A, "An applicant may assert more than one practical application, but only one is necessary to satisfy the utility requirement." As noted above, it is submitted that the Applicant has asserted a practical application of the claimed invention including a certain level of "real world" value.

Furthermore, it is submitted that the Examiner's objection to the term "attribute data" as being an abstract term appears unfounded and inconsistent with Patent Office practice. It is respectfully submitted that this objection should therefore be withdrawn.

In the field of case based reasoning, "attribute" is a commonly accepted and applied term. This assertion is consistent with the Patent Office's practise of issuing patents relating to case-based reasoning or knowledge systems and methodologies having claims containing the words "attribute" or "attributes": see for example U.S. Patent Nos. 6,704,719; 6,571,251; 6,353,817; 6,353,813; 6,345,264; 6,311,173; 6,212,528; 6,081,798; 6,026,399; 5,822,743; 5,402,524.

It is not apparent why the use of the term "attribute data" in the context of the present application would be construed to be more abstract than "attribute" or "attributes" in the context of the above-listed patents. It is also worth noting that the subject matter of the claims in the above-listed patents was not considered by the Patent Office to be impermissibly abstract, but rather was found to satisfy the requirements of s.101 as being directed towards practical applications in the technical arts.

For the reasons noted, it is submitted that the rejection of claim 1 based under s.101 should be withdrawn. Accordingly, it is further submitted that claim 1 and all claims which depend therefrom (claims 2-5), should be considered as being directed towards statutory subject matter in accordance with s.101, and the rejection should be withdrawn.

In view of the Applicant's submissions regarding the withdrawal of the s.101 objection to claim 1 and its dependent claims (claims 2-5), it is submitted that the rejection pursuant to s.112 is moot and should also be withdrawn.

**Claim 6 (and 7-10)**

Claim 6 is directed towards a case-based reasoning system for determining a root cause of a problem case. For reasons similar to those noted above in relation to claim 1, claim 6 may be characterized as being directed towards specific machinery to produce a useful, concrete and tangible result.

For the reasons noted, it is submitted that the rejection of claim 6 based under s.101 should be withdrawn. Accordingly, it is further submitted that claim 6 and all claims which depend therefrom (claims 7-10), should be considered as being directed towards statutory subject matter in accordance with s.101, and the rejection should be withdrawn.

In view of the Applicant's submissions regarding the withdrawal of the s.101 objection to claim 6 and its dependent claims (claims 7-10), it is submitted that the rejection pursuant to s.112 is moot and should also be withdrawn.

**Claim 11 (and 12-15)**

Claim 11 is directed towards a method for determining a root cause of a problem case using a case-based reasoning system. For reasons similar to those noted above in relation to claim 1, claim 11 may be characterized as being directed towards specific methodology to produce a useful, concrete and tangible result.

Accordingly, it is submitted that claim 11 and all claims which depend therefrom (claims 12-15), should be considered as being directed towards statutory subject matter in accordance with s.101, and the rejection should be withdrawn. Similarly, it is submitted that the rejection of claims 11-15 pursuant to s.112 is moot and should also be withdrawn.

**Claim 16**

Claim 16 is directed towards a method for creating data for use in a case-based reasoning system. In this instance, the generated data is the "useful, concrete, and tangible result". This data is in turn able to be used in a case based reasoning system, which it has been argued is patentable subject matter. Accordingly, for reasons similar to those noted above in relation to claim 1, claim 16 may also be characterized as being directed towards specific methodology to produce a useful, concrete and tangible result.


Accordingly, it is submitted that claim 16, should be considered as being directed towards statutory subject matter in accordance with s.101, and the rejection should be withdrawn. Similarly, it is submitted that the rejection of claim 16 pursuant to s.112 is moot and should also be withdrawn.

The applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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